

**INITIAL STATEMENT OF REASONS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE ADOPTION OF THE
2019 CALIFORNIA ELECTRICAL CODE (CEC)
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

(HCD XX/XX)**

The Administrative Procedure Act (APA) requires an Initial Statement of Reasons (ISOR) to be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS:

(Government Code Section 11346.2(b)(1) requires a statement of specific purpose of each adoption, amendment, or repeal, the problem the agency intends to address, and the rationale for the determination by the agency that each adoption, amendment or repeal is reasonably necessary to carry out the purpose, including the problem the agency intends to address, for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.)

1) The Public Problem, Administrative Requirement, or Other Circumstance Addressed

Administrative Requirement: Health and Safety Code Section 17922 directs the Department of Housing and Community Development (HCD) to adopt the most recent edition of the model code, which, in this case, is the National Electrical Code (NEC) published by the National Fire Protection Association (NFPA).

2) Specific Purpose

The California Building Standards Commission (CBSC) selected the 2017 NEC as the model code to be referenced in Title 24, Part 3 of the California Code of Regulations (CCR) for the 2018 Triennial Code Adoption Cycle.

The specific purpose of these regulations is to adopt by reference the 2017 edition of the NEC, with California Amendments, into the 2019 California Electrical Code (CEC), Title 24, Part 3 of the CCR for the following programs:

- a) **State Housing Law:** relative to residential occupancies, buildings or structures accessory thereto.
- b) **Employee Housing Act:** relative to the use of electrical equipment and systems in or on any building or structure or outdoors on premises or property in accordance with Health and Safety Code Section 17040.
- c) **Mobilehome Parks and Special Occupancy Parks:** relative to the use of electrical equipment and systems in or on any permanent buildings, accessory buildings, and structures under the ownership and control of the park operator, within the park, in accordance with Health and Safety Code Section 18300 for mobilehome parks, and Health and Safety Code Section 18865 for special occupancy parks.
- d) **Factory-Built Housing Law:** relative to residential buildings, dwellings or portions thereof, or building components, or manufactured assemblies in accordance with Health and Safety Code Section 19990.

3) Rationale for Necessity

The National Fire Protection Association acted on the 2017 NEC at its Association Technical Meeting held June 13-16, 2016. The 2017 edition of the NEC was issued by the Standards Council on August 4, 2016, with an effective date of August 24, 2016, and supersedes all previous editions. The NEC will automatically become adopted, in its entirety, pursuant to Health and Safety Code Section 17922(b), one year from its date of publication, if not adopted or proposed for adoption by HCD to the CBSC prior to that date.

If the 2017 NEC becomes adopted in its entirety without being adopted by the CBSC, such automatic adoption would cause considerable confusion because California Amendments, also known as “State Amendments”, are necessary modifications to the model code language to ensure that the 2019 CEC is consistent with state law.

It is necessary to propose the adoption of some sections of the 2017 NEC with amendments to the model code language to incorporate state law provisions and to accommodate unique California conditions.

It is necessary to not propose the adoption of some sections of the 2017 NEC as they would conflict with existing state law provisions and not accommodate unique California conditions.

It is necessary to bring forward previously existing California Amendments. Some existing amendments will be brought forward without any changes and will represent no change in regulatory effect from the 2016 CEC. Other previously existing California Amendments will be changed as explained below.

Specific Proposed Regulatory Actions:

HCD proposes to adopt the 2017 NEC by reference into the 2019 CEC with modification. The rationale for each modification is listed below.

Acronyms:

CBC	California Building Code
CBSC	California Building Standards Commission
CEC	California Electrical Code
CALGreen	California Green Building Standards Code
CRC	California Residential Code
HCD	Department of Housing and Community Development

**1. CALIFORNIA ARTICLE 89
GENERAL CODE PROVISIONS**

HCD proposes to continue adoption of existing California amendments in Article 89 from the 2016 CEC into the 2019 CEC with modifications as follows:

SECTION: 89.101.1 Title

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The proposed modification updates the reference to the NEC from the 2014 NEC to the 2017 NEC.

SECTION: 89.101.3.3 Exempted from this Code

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The proposed modification removes the lettering of the items exempted from this code. Currently all items have a letter and a number designation [(A) 1, (B) 2, (C) 3]. Article 89 was reformatted for the 2007 CEC and the lettering should have been repealed and replaced by numbers to be consistent with the new format.

SECTION: 89.101.7.3 Conflicts (Exception)

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The proposed modification removes “efficiency dwelling units” from the list of exceptions that are not required to comply with the California Residential Code (CRC) if constructed in accordance with the California Building Code (CBC). During the 2016 Intervening Code Adoption Cycle efficiency dwelling unit requirements were repealed from the CRC. The requirements are still contained in the CBC to allow for efficiency dwelling units in apartment buildings. HCD believes that the original intent was to allow for efficiency dwelling units in apartment buildings and therefore efficiency dwelling units should only comply with the requirements of the CBC. This amendment is being proposed for consistency with the rest of Title 24.

SECTION: 89.108.2.1.3 Permanent Buildings in Mobilehome Parks and Special Occupancy Parks.

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The modification is for consistency with the rest of Title 24.

SECTION: 89.108.7.3 Department of Housing and Community Development.

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The modification is

for consistency with the rest of Title 24.

SECTION: 89.108.8.1 General.

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The modification is an editorial correction.

The remainder of Article 89 is being brought forward from the 2016 CEC without modification.

2. ARTICLE 90 Introduction

Rationale: HCD proposes to adopt Article 90 from the 2017 NEC into the 2019 CEC without modification.

3. Chapter 1 General

HCD proposes to adopt Chapter 1, Articles 100 and 110 from the 2017 NEC into the 2019 CEC with new and existing amendments as follow:

ARTICLE 100 Definitions

Ballasted Solar Photovoltaic System

Rationale: HCD proposes to bring forward the above referenced California definition from the 2016 CEC for adoption into the 2019 CEC without modification.

Building

Rationale: HCD proposes to adopt the above referenced definition with new California amendment. The new amendment is for consistency with the rest of Title 24.

ARTICLE 110 Requirements for Electrical Installations

SECTION: 110.13 MOUNTING AND COOLING OF EQUIPMENT

Rationale: HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment allows the use of ballasted solar photovoltaic systems provided that the wiring and interconnections are designed to accommodate for maximum system displacement.

4. Chapter 2 Wiring and Protection

ARTICLES: 200, 210, 215, 220, 225, 230, 240, 250, 280 and 285.

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC without amendment.

5. Chapter 3 Wiring Methods and Materials

ARTICLES: 300, 310, 312, 314, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 348, 350, 352, 353, 354, 355, 356, 358, 360, 362, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 393, 394, 396, 398, 399.

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC with existing California amendments as follows:

SECTION: 334.10 Uses Permitted

Rationale: HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment to the "Note" provides the user with a specific reference to the CBC for Types I, II, III, IV and V construction as used in Section 334.10 Items (2), (3), (4) and (5).

SECTION: 394.12 Uses Not Permitted

Rationale: HCD proposes to adopt the above referenced section with existing California amendment. The existing

amendment provides specificity to the code user as it relates to the use of knob-and-tube wiring in California. The existing amendment allows for areas with existing knob-and-tube wiring to be insulated as long as certain requirements are met for fire safety. One of the requirements is that the wiring shall be surveyed by an electrical contractor and a certification shall be provided stating that the wiring is in good condition with no evidence of deterioration, improper over-current protection, or improper connections or splices.

6. Chapter 4 Equipment for General Use

ARTICLES: 400, 402, 404, 406, 408, 409, 410, 411, 422, 424, 426, 427, 430, 440, 445, 450, 455, 460, 470, 480, 490

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC with existing California amendments as follows:

SECTION: 450.23 Less-Flammable Liquid-Insulated Transformers

Rationale: HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment adds a "Note", which provides the user with a specific reference to the CBC for Types I and II construction as used in Section 450.23.

7. Chapter 5 Special Occupancies

ARTICLES: 518, 545 and 590

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC without amendment.

8. Chapter 5 Special Occupancies

ARTICLES: 500, 501, 502, 503, 504, 505, 506, 510, 511, 513, 514, 515, 516, 517, 520, 522, 525, 530, 540, 547, 550, 551, 552, 553, 555

Rationale: HCD proposes to *not* adopt the above referenced Articles from the 2017 NEC. The code provisions covered by these Articles do not fall within the occupancies regulated by HCD.

9. Chapter 6 Special Equipment

ARTICLES: 600, 620, 625, 626, 646, 680, 682, 690, 691, 692 and 694

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC with existing California amendments as follows:

SECTION: 625.1.1 (HCD 1) Electric Vehicle (EV) Charging for New Construction

Rationale: HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment is a pointer to CALGreen. During the 2012 Triennial Code Adoption Cycle, pointers to mandatory CALGreen requirements were proposed for inclusion into other codes to enhance user convenience.

Note: Article 691 "Large-Scale Photovoltaic (PV) Electric Power Production Facility" is a new Article in the 2017 NEC.

10. Chapter 6 Special Equipment

ARTICLES: 604, 605, 610, 630, 640, 645, 647, 650, 660, 665, 668, 669, 670, 675, 685 and 695

Rationale: HCD proposes to *not* adopt the above referenced Articles from the 2017 NEC. The code provisions covered by these Articles do not fall within the occupancies regulated by HCD.

11. Chapter 7 Special Conditions

ARTICLES: 700, 702, 705, 706, 708, 710, 712, 720, 725, 727, 728, 750, 770

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC without amendment.

Note: Article 706 “Energy Storage Systems”, Article 710 “Stand-Alone Systems” and Article 712 “Direct Current Microgrids” are new Articles in the 2017 NEC.

12. Chapter 7 Special Conditions
ARTICLES: 701 and 760

Rationale: HCD proposes to **not** adopt the above referenced Articles from the 2017 NEC. The code provisions covered by these Articles do not fall within the occupancies regulated by HCD.

13. Chapter 8 Communications Systems
ARTICLES: 800, 810, 820, 830 and 840

Rationale: HCD proposes to adopt the above referenced Articles from the 2017 NEC into the 2019 CEC without amendment.

14. Chapter 9 Tables
TABLES: 1, 2, 4, 5, 5A, 8, 9, 10, 11(A), 11(B), 12(A) and 12(B)

Rationale: HCD proposes to adopt the above referenced Chapter from the 2017 NEC into the 2019 CEC without amendment.

15. Annexes

Rationale: HCD proposes to **not** adopt Annexes A, B, C, D, E, F, G, H, I and J from the 2017 NEC. The Annexes are available for local enforcement agencies to adopt by ordinance.

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS

(Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).)

None.

STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS

(Government Code Section 11346.2(b)(1)) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.)

HCD is statutorily required to adopt by reference model building codes which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety and welfare standards for owners, occupants and guests.

Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

CONSIDERATION OF REASONABLE ALTERNATIVES

(Government Code Section 11346.2(b)(4)(A)) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.)

None. There were no alternatives available to HCD. HCD is required by statute to adopt the model code by reference.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

(Government Code Section 11346.2(b)(4)(B)) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.)

None. There were no alternatives available to HCD. HCD is required by statute to adopt the model code by reference. The proposed amendments have no negative impact on small business.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS

(Government Code Section 11346.2(b)(5)(A)) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.)

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION.

(Government Code Sections 11346.3(b)(1) and 11346.5(a)(10)).

HCD has assessed whether or not and to what extent this proposal will affect the following:

- The creation or elimination of jobs within the State of California.

These regulations will not affect the creation, or cause the elimination, of jobs within the State of California.

- The creation of new businesses or the elimination of existing businesses within the State of California.

These regulations will not affect the creation or the elimination of existing business within the State of California.

- The expansion of businesses currently doing business with the State of California.

These regulations will not affect the expansion of businesses currently doing business within the State of California.

- The benefits of the regulations to the health and welfare of California residents, worker safety, and the state's environment.

These regulations will update and improve minimum electrical standards, which will provide increased protection of public health and safety, worker safety and the environment.

ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS

(Government Code Section 11346.2(b)(5)(B)(i)) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.)

- No increased cost of compliance for those regulations that make only technical and nonsubstantive changes.
- The potential benefits provide recognition and appropriate use of new technologies and materials, clarity for the code users and local enforcement agencies.
- Protection of public health and safety, worker safety and the environment.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

(Government Code Section 11346.2(b)(6)) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a

finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.)

These regulations do not duplicate nor conflict with federal regulations.